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EXAMINER
HOYE, MICHAEL W

ART UNIT	PAPER NUMBER
2623	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	09/895,448	CRINON ET AL.
	Examiner	Art Unit	
	Michael W. Hoye	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>22 December 2006</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,7-10 and 15-30* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,7-10 and 15-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>29 June 2001</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>10/10/06 & 12/22/06</u>.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Response to Arguments

1.   Applicants' arguments filed on December 22, 2006 have been fully considered but they

are not persuasive.

Regarding amended independent claim 1, as well as each of amended independent claims

7, 15, 20, 23 and 28, the Applicants argue on page 10 that, "The claimed embodiments have been

amended to recite a carousel wherein instances of a module are distributed approximately

uniformly across the carousel and across two or more periods of the carousel...in FIG. 2a of

Bisdikian, the instances of the cross-hatched page are not uniformly distributed across the

carousel but, rather, are weighted toward the beginning of the carousel."

In response, the Examiner respectfully disagrees with the Applicants because Bisdikian

clearly teaches the claimed, "instances of each module are distributed approximately uniformly

across the carousel and across two or more periods of the carousel", as met by col. 3, line 36 –

col. 4, line 5 and Figs. 2 and 2a, where each series of image frames is repetitively transmitted on

a cyclic basis, and certain image frames or "modules" which are more often accessed or are high

priority are positioned or "represented" in a carousel by a plurality of copies or "instances",

where such positioning is accomplished by assigning a priority value to each image frame or to

just high usage image frames and by inserting plural copies the higher priority value image

frame(s) into the carousel. More specifically, in Fig. 2a, the "same page (high priority)"

instances of a "module" are represented three times in a carousel cycle and have three other

information pages or modules between successive instances of the same page (high priority)

pages or "module[s]", whereby, the waiting time for certain image frames that are more often

accessed is reduced to less than one half of a cycle time, since a plurality of copies of such an

image frame are positioned in the carousel cycle as described above. In addition to, the

specification of Bisdikian does not teach or suggest that certain image frames are weighted

toward the beginning of the carousel or are not uniformly distributed across the carousel.

Claim Rejections - 35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or
> any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and
> requirements of this title.

3.   Claims 1-3, 7-10 and 15-30 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

Regarding claims 1-3 and 15-22, and more specifically independent claims 1, 15 and 20,

the claims are seemingly a patentable process or structure, but they are in reality seeking

protection for a concept in the abstract and do not recite a limitation for producing a useful,

concrete, and tangible result (see the related discussion for claims 23-30 as described below).

Claims 7-10 claim "a transmission..." or are directed to a signal, and claims that recite

nothing but the physical characteristics of a form of energy...are non-statutory. A claimed signal

is clearly not a "process" because it is not a series of steps (see USPTO Notice: 22 November

2005; Interim Guidelines for Examination of Patent Applications for Patent Subject matter

Eligibility; Annex IV - Computer-related Non-Statutory Subject Matter (c) Electro-Magnetic

Signals).

Claims 23-30, and more specifically independent claims 23 and 28, claim an article of

manufacture comprising: a machine accessible medium embodying functional descriptive

material, i.e., instructions. However, the claims do not define a machine accessible medium as

computer readable medium, and therefore, the claims are non-statutory (see USPTO Notice: 22

November 2005; Interim Guidelines for Examination of Patent Applications for Patent Subject

matter Eligibility; Annex IV - Computer-related Non-Statutory Subject Matter).

The Examiner suggests amending the claims to embody the instructions/computer

program on a "computer readable medium" in order to make the claims statutory. For example,

the claimed "an article of manufacture comprising: a machine accessible medium, the machine

accessible medium providing instructions that, when executed by a machine, cause the machine

to..." should be changed to the following: --an article of manufacture comprising: a computer

readable medium encoded with computer executable instructions capable of being executed by a

machine that, when executed by the machine, cause the machine to...--.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1-2, 7-10 and 15-30 are rejected under 35 U.S.C. 102(e) as being anticipated by

Bisdikian et al (US 6,047,317), cited by Examiner.

Regarding claim 1, the claimed "carousel" is met as follows:

- The claimed "plurality of modules, each of the plurality of modules comprising one of a data module and an object module" is met by the image frame, which is comprised of image data and navigation data and is inserted onto the carousel in a plurality of spaces [col. 3, line 36 – col. 4, line 5 & Fig. 2a].

- The claimed "wherein each of the modules is represented in the carousel by a number of instances that is proportional to the module's priority relative to all other modules in the carousel" is met by certain image frames or "modules" which are more often accessed are positioned or "represented" in a carousel by a plurality of copies or "instances", where such positioning is accomplished by assigning a priority value to each image frame or to just high usage image frames and by inserting plural copies of the higher priority value image frame(s) into the carousel (see Fig. 2a), which is proportional to the module's priority relative to all other modules in the carousel, as shown in Fig. 2a, where a high priority module is represented 3 times as many times in a carousel cycle as other information modules (see col. 3, line 36 – col. 4, line 5). The claimed, "and no module of the plurality of modules has successive instances positioned directly adjacent to one another in the carousel", is met by Fig. 2a, where the "same page (high priority)" instances of a "module" are represented three times in a carousel cycle and have three other information pages or modules between successive instances of the same page (high priority) pages or "module[s]", whereby, "no module of the plurality of modules has successive instances positioned directly adjacent to one

another in the carousel" (also see col. 3, line 36 – col. 4, line 5). The claimed,

"and wherein the instances of each module are distributed approximately

uniformly across the carousel and across two or more periods of the carousel", is

met by col. 3, line 36 – col. 4, line 5 and Figs. 2 and 2a, where each series of

image frames is repetitively transmitted on a cyclic basis, and certain image

frames or "modules" which are more often accessed or are high priority are

positioned or "represented" in a carousel by a plurality of copies or "instances",

where such positioning is accomplished by assigning a priority value to each

image frame or to just high usage image frames and by inserting plural copies the

higher priority value image frame(s) into the carousel, and as a result, the waiting

time for certain image frames that are more often accessed is reduced to less than

one half of a cycle time, since a plurality of copies of such an image frame are

positioned in the carousel cycle as described above.

Regarding claim 2, the claimed "carousel of claim 1, wherein no module of the plurality

of modules has successive instances positioned directly adjacent to one another across two

periods of the carousel" is met by the different image frames or "other information pages"

separating the instances of the first image frame "same page (high priority)" in each carousel

cycle as shown in Fig. 2a and as previously described above in claim 1 in a similar manner.

Regarding claim 7, the claimed "transmission" is met as follows:

- The claimed "transport stream" is met by the MPEG-2 transport stream [col. 4,

  line 34].

- The claimed "carousel encapsulated in the transport stream, the carousel having a plurality of modules, each of the plurality of modules comprising one of a data module and an object module" is met by the packetized and wrapped carousels being delivered in the MPEG-2 transport stream [col. 4, lines 29-34]. The modules are met by the image frame, which is comprised of image data and navigation data and is inserted onto the carousel in a plurality of spaces [col. 3, line 36 – col. 4, line 5 & Fig. 2a].

- The claimed "wherein each of the modules is represented in the carousel by a number of instances that is proportional to the module's priority relative to all other modules in the carousel" is met by certain image frames or "modules" which are more often accessed are positioned or "represented" in a carousel by a plurality of copies or "instances", where such positioning is accomplished by assigning a priority value to each image frame or to just high usage image frames and by inserting plural copies of the higher priority value image frame(s) into the carousel (see Fig. 2a), which is proportional to the module's priority relative to all other modules in the carousel, as shown in Fig. 2a, where a high priority module is represented 3 times as many times in a carousel cycle as other information modules (see col. 3, line 36 – col. 4, line 5). The claimed, "and no module of the plurality of modules has successive instances positioned directly adjacent to one another in the carousel", is met by Fig. 2a, where the "same page (high priority)" instances of a "module" are represented three times in a carousel cycle and have three other information pages or modules between successive instances of the

same page (high priority) pages or "module[s]", whereby, "no module of the plurality of modules has successive instances positioned directly adjacent to one another in the carousel" (also see col. 3, line 36 – col. 4, line 5). The claimed, "and wherein the instances of each module are distributed approximately uniformly across the carousel and across two or more periods of the carousel", is met by col. 3, line 36 – col. 4, line 5 and Figs. 2 and 2a, where each series of image frames is repetitively transmitted on a cyclic basis, and certain image frames or "modules" which are more often accessed or are high priority are positioned or "represented" in a carousel by a plurality of copies or "instances", where such positioning is accomplished by assigning a priority value to each image frame or to just high usage image frames and by inserting plural copies the higher priority value image frame(s) into the carousel, and as a result, the waiting time for certain image frames that are more often accessed is reduced to less than one half of a cycle time, since a plurality of copies of such an image frame are positioned in the carousel cycle as described above.

Regarding claim 8, the claimed "transmission of claim 7, the transport stream comprising an MPEG-2 transport stream" is met by the MPEG-2 transport stream [col. 4, line 34].

Regarding claim 9, the claimed "transmission of claim 7, the transport stream comprising at least a portion of a digital television broadcast signal" is met by the MPEG-2 transport stream being multiplexed onto a digital video broadcast [col. 4, lines 37-39].

Regarding claim 10, the claimed "transmission of claim 7, wherein no module of the plurality of modules has successive instances positioned directly adjacent to one another across

two periods of the carousel" is met by the different image frames or "other information pages" separating the instances of the first image frame "same page (high priority)" in each carousel cycle as shown in Fig. 2a and as previously described above in claim 1 in a similar manner.

Regarding claim 15, the claimed "method" is met as follows:

- The claimed step of "encapsulating into a transport stream a carousel having a plurality of modules, each of the plurality of modules comprising one of a data module and an object module" is met by the packetized and wrapped carousels being delivered in the MPEG-2 transport stream [col. 4, lines 29-34]. The modules are met by the image frame, which is comprised of image data and navigation data and is inserted onto the carousel in a plurality of spaces [col. 3, line 36 – col. 4, line 5 & Fig. 2a].

- The claimed "wherein each of the modules is represented in the carousel by a number of instances that is proportional to the module's priority relative to all other modules in the carousel" is met by certain image frames or "modules" which are more often accessed are positioned or "represented" in a carousel by a plurality of copies or "instances", where such positioning is accomplished by assigning a priority value to each image frame or to just high usage image frames and by inserting plural copies of the higher priority value image frame(s) into the carousel (see Fig. 2a), which is proportional to the module's priority relative to all other modules in the carousel, as shown in Fig. 2a, where a high priority module is represented 3 times as many times in a carousel cycle as other information modules (see col. 3, line 36 – col. 4, line 5). The claimed, "and no module of the

plurality of modules has successive instances positioned directly adjacent to one

another in the carousel", is met by Fig. 2a, where the "same page (high priority)"

instances of a "module" are represented three times in a carousel cycle and have

three other information pages or modules between successive instances of the

same page (high priority) pages or "module[s]", whereby, "no module of the

plurality of modules has successive instances positioned directly adjacent to one

another in the carousel" (also see col. 3, line 36 – col. 4, line 5). The claimed,

"and wherein the instances of each module are distributed approximately

uniformly across the carousel and across two or more periods of the carousel", is

met by col. 3, line 36 – col. 4, line 5 and Figs. 2 and 2a, where each series of

image frames is repetitively transmitted on a cyclic basis, and certain image

frames or "modules" which are more often accessed or are high priority are

positioned or "represented" in a carousel by a plurality of copies or "instances",

where such positioning is accomplished by assigning a priority value to each

image frame or to just high usage image frames and by inserting plural copies the

higher priority value image frame(s) into the carousel, and as a result, the waiting

time for certain image frames that are more often accessed is reduced to less than

one half of a cycle time, since a plurality of copies of such an image frame are

positioned in the carousel cycle as described above.

Regarding claim 16, the claimed "method of claim 15, further comprising transmitting

the transport stream and the encapsulated carousel to a receiver" is met by the MPEG-2 transport

stream being multiplexed onto a digital video broadcast for delivery to set-top box 18 [col. 4,

lines 37-54].

Regarding claim 17, the claimed "method of claim 15, further comprising periodically

encapsulating the carousel into the transport stream" is met by the MPEG-2 transport stream

being multiplexed onto a digital video broadcast [col. 4, lines 37-39].

Regarding claim 18, the claimed "transport stream comprising an MPEG-2 transport

stream" is met by the MPEG-2 transport stream [col. 4, line 34].

Regarding claim 19, the claimed "method of claim 15, the transport stream comprising at

least a portion of a digital television broadcast signal" is met by the MPEG-2 transport stream

being multiplexed onto a digital video broadcast [col. 4, lines 37-39].

Regarding claim 20, the claimed "method" is met as follows:

- The claimed step of "receiving a transport stream having an encapsulated

  carousel, the carousel having a plurality of modules, each of the plurality of

  modules comprising one of a data module and an object module" is met by the

  reception of the MPEG-2 transport stream and the encapsulated carousel at the

  set-top box 18 [col. 4, line 53 – col. 5, line 12]. The modules are met by the

  image frame, which is comprised of image data and navigation data and is

  inserted onto the carousel in a plurality of spaces [col. 3, line 36 – col. 4, line 5 &

  Fig. 2a].

- The claimed step of "wherein each of the modules is represented in the carousel

  by a number of instances that is proportional to the module's priority relative to

  all other modules in the carousel" is met by certain image frames or "modules"

which are more often accessed are positioned or "represented" in a carousel by a

plurality of copies or "instances", where such positioning is accomplished by

assigning a priority value to each image frame or to just high usage image frames

and by inserting plural copies of the higher priority value image frame(s) into the

carousel (see Fig. 2a), which is proportional to the module's priority relative to all

other modules in the carousel, as shown in Fig. 2a, where a high priority module

is represented 3 times as many times in a carousel cycle as other information

modules (see col. 3, line 36 – col. 4, line 5). The claimed, "and no module of the

plurality of modules has successive instances positioned directly adjacent to one

another in the carousel", is met by Fig. 2a, where the "same page (high priority)"

instances of a "module" are represented three times in a carousel cycle and have

three other information pages or modules between successive instances of the

same page (high priority) pages or "module[s]", whereby, "no module of the

plurality of modules has successive instances positioned directly adjacent to one

another in the carousel" (also see col. 3, line 36 – col. 4, line 5). The claimed,

"and wherein the instances of each module are distributed approximately

uniformly across the carousel and across two or more periods of the carousel", is

met by col. 3, line 36 – col. 4, line 5 and Figs. 2 and 2a, where each series of

image frames is repetitively transmitted on a cyclic basis, and certain image

frames or "modules" which are more often accessed or are high priority are

positioned or "represented" in a carousel by a plurality of copies or "instances",

where such positioning is accomplished by assigning a priority value to each

image frame or to just high usage image frames and by inserting plural copies the

higher priority value image frame(s) into the carousel, and as a result, the waiting

time for certain image frames that are more often accessed is reduced to less than

one half of a cycle time, since a plurality of copies of such an image frame are

positioned in the carousel cycle as described above.

- The claimed step of "extracting an instance of at least one module from the

  transport stream" is met by the decoding of the image frames so that they can be

  displayed on the television receiver [col. 5, lines 4-12].

Regarding claim 21, the claimed "method of claim 20, the transport stream comprising an

MPEG-2 transport stream" is met by the MPEG-2 transport stream [col. 4, line 34].

Regarding claim 22, the claimed "method of claim 20, the transport stream comprising at

least a portion of a digital television broadcast signal" is met by the MPEG-2 transport stream

being multiplexed onto a digital video broadcast [col. 4, lines 37-39].

Regarding "article of manufacture" claim 23-30, see the above rejection for similar

"method" claims 15-22.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

7.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bisdikian et al.

Regarding claim 3, the claimed "carousel of claim 1, wherein at least one module of the plurality of modules includes module content, the module content representing information selected from a group consisting of television program guide information, advertising information, product information, emergency information, weather information, and news information" is met in part by the program guide information being delivered by image frames in the carousel [col. 5, lines 13-48]. Although Bisdikian et al does not explicitly disclose advertising information, product information, emergency information, weather information, and news information, the examiner takes Official Notice that it is notoriously well known in the art of video distribution systems and electronic program guide systems to include content consisting of advertising information , product information, emergency information, weather information and news information for the advantages of providing the user with additional desired information (i.e. news, weather, product info., emergency info., etc.) for an improved viewing experience, as well as generating additional revenue for the service provider(s). Therefore, it is submitted that it would have been clearly obvious to one of ordinary skill in the art at the time of the invention to have module content representing information selected from a group consisting of television program guide information, advertising information, product information, emergency information, weather information, and news information for the advantages given above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael W. Hoye whose telephone number is **571-272-7346**. The examiner can normally be reached on Monday to Friday from 8:30 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Miller, can be reached at **571-272-7353**.

Any response to this action should be mailed to:

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PAIR system, contact the Electronic Business Center (EBC) at **866-217-9197** (toll-free).

Michael W. Hoye
March 22, 2007

JOHN MILLER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600